

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 73.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006710**Date Inspected:** 13-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** HoChang, Korea**Location:** Unyang/Changwon, Korea

<b>CWI Name:</b>	Sang Ho Kwak		
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>

<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>

**Bridge No:** 34-0006**Component:** Pier E2 bearing and Shear key**Summary of Items Observed:**

The following report is based on METS observations at HoChang Machinery Industries (HCMI). Current work: Casting, forging and machining.

On this date the Caltrans Quality Assurance (QA) inspector, Dong J. Shin arrived at HoChang Machinery Industries (HCMI) located at Unyang, Korea and DooSan Heavy Industries (DHIC) located at Changwon, Korea. The Purpose of this trip was to observe quality control during fabrication and process of following items.

**Forging**

1. Bearing Bottom Housing (B1-07/F07302-010): Completed Hardness Testing.
2. Bearing Bottom Housing (B2-07/F07302-020): Completed Hardness Testing.
3. Bearing Bottom Housing (B3-07/F07302-030): Completed Hardness Testing.
4. Bearing Bottom Housing (B4-07/F07302-040): Waiting for MPT.
5. Spherical Ring (S1-07/F07302-050): Completed Hardness Testing.
6. Spherical Ring (S2-07/F07302-060): Completed Hardness Testing.
7. Spherical Ring (S3-07/F07302-070): Completed Hardness Testing.
8. Spherical Ring (S4-07/F07302-080): Completed Hardness Testing.
9. Solid Shaft (B1-02/F07302-090): Completed Hardness Testing.
10. Solid Shaft (B2-02/F07302-100): Completed Hardness Testing.
11. Solid Shaft (B3-02/F07302-110): Waiting for MPT.
12. Solid Shaft (B4-02/F07302-120): Waiting for MPT.

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

- F number is DooSan Production Number.
- B number is drawing Number.

## Casting

On this date, the Caltrans Quality Assurance (QA) inspector, Dong J. Shin arrived at HoChang Machinery Industries (HCMI) located at Unyang, Korea and DooSan Heavy Industries(DHIC) located at Changwon, Korea. The Purpose of this trip was to observe quality control during fabrication and process of following items.

1. Bearing Top Housing (B1-06, C07039-010): Completed defect removal and initial NDT.
2. Bearing Top Housing (B2-06, C07039-020): Completed defect removal and initial NDT.
3. Bearing Top Housing (B3-06, C07039-030): Completed repair welding.
4. Bearing Top Housing (B4-06, C07039-040): Started repair welding.
5. Bearing Hold Down Assembly (B1-01-1, C07039-050): Completed repair welding.
6. Bearing Hold Down Assembly (B1-01-2, C07039-060): Started repair welding.
7. Bearing Hold Down Assembly (B2-01-1, C07039-070): Completed repair welding.
8. Bearing Hold Down Assembly (B2-01-2, C07039-080): Completed repair welding.
9. Bearing Hold Down Assembly (B3-01-1, C07039-170): Completed repair welding.
10. Bearing Hold Down Assembly (B3-01-2, C07039-180): Started repair welding.
11. Bearing Hold Down Assembly (B4-01-1, C07039-190): Completed defect removal and initial NDT.
12. Bearing Hold Down Assembly (B4-01-2, C07039-200): Completed defect removal and initial NDT.
13. Shear Key Stub (S1-01, C07039-090): Completed repair welding.
14. Shear Key Stub (S2-01, C07039-100): Continue repair welding.
15. Shear Key Stub (S3-01, C07039-110): Start repair welding.
16. Shear Key Stub (S4-01, C07039-120): Completed defect removal and initial NDT.
17. Shear key Housing (S1-03, C07039-130): Completed defect removal and initial NDT.
18. Shear key Housing (S2-03, C07039-130): Completed defect removal and initial NDT.
19. Shear key Housing (S3-03, C07039-130): Continue to remove out defects.
20. Shear key Housing (S4-03, C07039-130): Continue to remove out defects.

- \* S and B number is drawing number.
- \* C number is DSHI ID number.

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---



### Summary of Conversations:

\*Discuss with Mr. S. H. Kwak regarding general project schedule.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, (510) 385-5910, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Shin,DJ	Quality Assurance Inspector
<b>Reviewed By:</b>	Lanz,Joe	QA Reviewer

---